

REMARKS

Claims 1-24 are pending in this application. By this response, claim 24 is amended. Reconsideration and allowance based on the above amendments and following remarks are respectfully requested.

The Office Action objects to claim 24 due to informalities. Specifically, the Office Action alleges that claim 24 is a claim directed to a computer readable recording medium and is dependent from a method claim and therefore is inappropriate. Applicant has amended claim 24 to correct the above, placing claim 24 in independent format. Accordingly, withdrawal of the objection is respectfully requested.

The Office Action rejects claims 1, 2, 6-9, 13-16 and 20-24 under 35 U.S.C. §103(a) as being unpatentable over Tuceryan, et al. (USP 6,044,168) and Holliman, et al. (USP 6,075,557) and claims 3-5, 10-12 and 17-19 under 35 U.S.C. §103(a) as being unpatentable over Tuceryan, et al. and Holliman, et al. in view of Lee and Ranganath ("3D Deformable Face Model for Pose Determination and Face Synthesis", Department of Electrical Engineering, The National University of Singapore, Image Analysis and Processing, International Conference Sept. 1999). These rejections are respectfully traversed.

Tuceryan provides a system that analyzes an input image to determine facial characteristics. The system uses facial templates stored in a database in its system. Each facial feature is detected in the image and then processed to create a 3D facial module. Templates of the facial features are created and then used to refine the location of the facial features. Each step of the process of Tuceryan is accomplished using a program which automatically performs the process. See column 3, line 8 through column 5, line 12.

In contrast, in Applicant's claimed invention, a face template is created in regard to an extracted image of a human face. Position matching of the face and the face template is accomplished by moving, transforming and/or rotating the face image and/or face template as instructed by an input of a user. This allows for a precise extraction of the facial characteristics in creation of the facial template.

Nowhere does Tuceryan teach or suggest performing rotation of a facial template or image. Further, Tuceryan fails to teach or suggest matching the face template and image by rotating, moving and/or transforming the face template and/or image based on an input from an input means, as recited in claims 1, 8, 15 and 24.

Also, Holliman does not make up for the deficiencies of Tuceryan. Holliman teaches a image tracking system. The system determines a position of a target in a series of images. In aspects of Holliman's system, a template is overlaid on a target image by a processor. See column 11, lines 40-47. A user is then is able to observe the accuracy of the template overlay on the image.

Holliman, however, fails to teach or suggest the moving, transforming and/or rotating the face template and/or image according to an input from an input means, as recited in claims 1, 8, 15 and 24. As discussed above, in Holliman, it is the processor that overlays the image. The user may align the image afterwards, but the user cannot rotate, transform or move a face template or image during the position matching process. At best, it can be said that Holliman teaches only the ability to move a graphical guide, not the image and certainly not the rotation or transformation of the image or face template.

Further, one of ordinary skill in the art would not be motivated to combine the teachings of Tuceryan with Holliman to achieve Applicant's claimed invention. In order for a

prima facie case to exist, the prior art must suggest the desirability of the claimed invention, providing motivation to make the combination proposed by the Examiner. *In re Rouffet*, 149 F.3d, 1350, 1357, 47 USPQ 2d 1453, 1457-58 (Fed.Cir. 1998). As demonstrated above, both Tuceryan and Holliman fail to teach the features of Applicant's claimed invention alone or in combination with each other. Thus, the references cannot suggest the desirability of the claimed invention.

Further, Tuceryan's system is specifically designed such that the system can operate without user intervention, while Holliman's system is designed such that a user can make an alignment change. One of ordinary skill would not modify Tuceryan's automated system to include intervention by a user, as it would eliminate the advantages of providing such an automated system.

Thus, as demonstrated above, the combination of Tuceryan and Holliman fail to teach each and every claimed feature as recited in the independent claims 1, 8, 15 and 24. Also, motivation to combine the teachings has not been established. Therefore, the requirements for establishing a rejection under 37 U.S.C. §103 have not been met.

Further, regarding claims 22-24, these claims recite, "converting a color tone of a desired area including the face area to a color tone of a predetermined target image". In embodiments of the present invention, a color tone of a desired area including an extracted face area is converted into a color tone of a target image so as to improve image quality. This particular embodiment of the present invention is not intended to change the color tone of the desired area so as to show which region has been analyzed or extracted, as suggested by the Examiner. Furthermore, Tuceryan, which is relied upon in the Office Action, only discloses that a color of the template is white or black which is different from

skin color. Tuceryan does not teach or suggest the above-noted claimed feature as recited in claims 22-24. In fact, Tuceryan does not even suggest that the color tone of the desired area including the extracted face area is converted into the color tone of the target image so as to improve the image quality.

Also, Applicants respectfully submit that with regard to claims 3, 10 and 17, Lee only discloses transformation of the image and does not disclose transformation of an image to generate an unsharp image, as recited in the claims.

Finally, the Office Action states that it is obvious to one of ordinary skill that the color that is different from the skin color is a "complimentary color" of the skin color as recited in claims 7, 14 and 21. However, Applicant respectfully submits that none of the cited references disclose the feature of the colors, different from the skin color being complimentary colors to the skin color. Applicant respectfully submits that one of ordinary skill would not make this determination, as there is not teaching to indicate that such feature as taught by Applicant is a complimentary color of the skin color.

In view of the above, Applicant respectfully submits that claims 1, 8, 15 and 24 are patentable over these cited references. Further, claims 3, 7, 10, 14, 17 and 21-24 are also patentable for the reasons provided in regard to independent claims 1, 8, 15 and 24 and also for the further features, which they provide as discussed above. Also, claims 2, 4-6, 9, 11-13, 16 and 18-20 are also distinguishable over cited references for the reasons indicated above. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejections.

Conclusion

For at least these reasons, it is respectfully submitted that claims 1-24 are distinguishable over the cited references. Favorable consideration and allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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